

## Ultra Trace Laboratory Perth

### *Analytical Procedure*

The samples have been analysed by Firing a 40 gm (approx) portion of the sample. Lower sample weights may be employed for samples with very high sulphide and metal contents. This is the classical fire assay process and will give total separation of Gold, Platinum and Palladium in the sample.

#### **Au, Pt, Pd**

have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry. The samples have been fused with Sodium Peroxide and subsequently the melt has been dissolved in dilute Hydrochloric acid for analysis. Because of the high furnace temperatures, volatile elements are lost. This procedure is particularly efficient for determination of Major element composition (Including Silica) in the samples or for the determination of refractory mineral species.

#### **Ag, As, Pb, Mo, Bi**

have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.

#### **Cu, Zn**

have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

### **Detection Limits**

#### Analytes

Au	1 ppb
Pt	5 ppb
Pd	5 ppb
Ag	5 ppb
As	10 ppm
Cu	50 ppm
Pb	10 ppm
Zn	50 ppm
Mo	5 ppm
Bi	1 ppm